



IFW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Brown et al.  
Appl. No. : 10/665,718  
Filed : 09/22/2003  
Title : DETECTION OF BIOLOGICAL MOLECULES BY DIFFERENTIAL  
PARTITIONING OF ENZYME SUBSTRATES AND PRODUCTS

Grp./A.U. :  
Examiner :

Docket No.: 14453

Honorable Commissioner of Patents  
Alexandria, VA 22313-1450  
Sir:

**PTO CUSTOMER NO. 000293**

INFORMATION DISCLOSURE STATEMENT

In accordance with 37 C.F.R., §§ 1.97-1.99, applicant submits the following information which may be of interest to the examiner in charge of the above referenced application for patent. Copies of the references listed on the attached Form PTO-1449, List of Prior Art Cited by Applicant with copies only the foreign art references and other publications included, are attached.

Also being submitted herewith is a copy of the International Preliminary Search Report with respect to PCT/CA 03/01439 which shows the relevancy of the listed patents which are also being submitted.

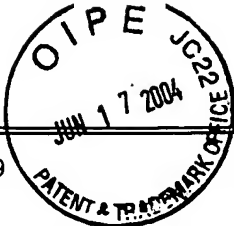
Respectfully submitted,

DOWELL & DOWELL, P. C.

Ralph A. Dowell, Reg. No. 26,868

Date: June 17, 2004

DOWELL & DOWELL, P.C.  
Suite 309, 1215 Jefferson Davis Highway  
Arlington, Virginia 22202  
Telephone: (703) 415-2555

FORM PTO-1449  
(Rev. 7-80)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

Atty. Docket No. 14453

Serial No.  
10/665,718**LIST OF PRIOR ART CITED BY APPLICANT**

(Use several sheets if necessary)

APPLICANT

Brown et al

FILING DATE 9/22/2003

GROUP

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER							DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	5	3	6	4	7	6	7	11/15/94				
	AB	6	0	6	0	2	6	6	05/09/00				

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER							DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
													YES	NO
	AC	9	3	0	3	0	5	1	02/18/93	WO				
	AD	9	9	3	2	6	5	5	07/01/99	WO				
	AE	0	0	4	4	1	4	0	01/20/82	EP				
	AF	9	2	1	6	6	4	8	10/01/92	WO				

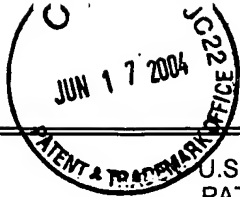
**OTHER PRIOR ART (including Author, Title, Date, Pertinent Pages, Etc.)**

	AG	Alonso, J.L.; et al. "Quantitative Determination of <i>E. coli</i> and Fecal Coliforms in Water Using a Chromogenic Medium". <i>J. Envir. Sci. Health A33</i> (6): 1229-1248 (1998).
	AH	Arkles, B. "Look What You Can Make Out Of Silicones". <i>Chemtech</i> . 13: 542-555 (1983).
	AI	D'Auriac, M.B.A.; et al. "Field Evaluation of a Semiautomated Method for Rapid and Simple Analysis of Recreational Water Microbiological Quality". <i>Applied and Environmental Microbiology</i> 66:4401-4407 (2000).
	AJ	Davies, C.M.; et al. "Rapid Enzymatic Detection of Faecal Pollution". <i>Wat. Sci. Tech.</i> 34(7-8):169-171 (1996).
	AK	Davies, C.M.; et al. "Field Evaluation of a Rapid Portable Test for Monitoring Fecal Coliforms in Coastal Waters". <i>Environ. Toxicol.</i> 14: 355-359 (1999).
	AL	"European School on Sensors for Food Applications", Marciana Marina, Elba Island, 18-29 April 1999, <a href="http://www.inapg.inra.fr/ens_rech/siab/asteq/elba/elba_index">www.inapg.inra.fr/ens_rech/siab/asteq/elba/elba_index</a>
	AM	Fischer, B.; et al. "A Novel Method for Stereoselective Glucuronidation". <i>J.Org. Chem.</i> 49:4988-4993 (1984).
	AN	Frampton, E.W.; et al. "Methods for <i>Escherichia coli</i> Identification in Food, Water and Clinical Samples Based on Beta-Glucuronidase Detection". <i>J. Appl. Bacter.</i> 74: 223-233 (1993).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 602; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449  
(Rev. 7-80)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

Atty. Docket No. 14453

Serial No.  
10/665,718**LIST OF PRIOR ART CITED BY APPLICANT**  
(Use several sheets if necessary)

APPLICANT

Brown et al

FILING DATE 9/22/2003

GROUP

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
---------------------	-----------------	------	------	-------	----------	----------------------------------

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AO	Gee, K.R.; et al. "Fluorogenic Substrates Based on Fluorinated Umbelliferones for Continuous Assays of Phosphatases and $\beta$ -Galactosidases". <i>Anal. Biochem.</i> <b>273</b> : 41-48 (1999).
	AP	Hall, J.; et al. "Reduction Products of the Hydroxyanthraquinones Part II". <i>J. Chem. Soc.</i> <b>123</b> : 2029-2037 (1923).
	AQ	Helferich, B.; et al. "Eine neue Methode zur Synthese von Glykosiden der Phenole". <i>Ber. Dtsch. Chem. Ges.</i> <b>66</b> : 378-383 (1933). [In German]
	AR	Kleine, H.P.; et al. "Phase-Transfer-Catalyzed Syntheses of 2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosides". <i>Carbo. Res.</i> <b>142</b> : 333-337 (1985).
	AS	Kiéné, L.; et al. "On-line Detection of Coliforms". <i>Water Supply.</i> <b>17</b> (2): 81-86 (1999).
	AT	Ley, A. N.; et al. "Indoxyl- $\beta$ -D-glucuronide, a Novel Chromogenic Reagent for Specific Detection and Enumeration of <i>Escherichia coli</i> in Environmental Samples". <i>Can. J. Microbiol.</i> <b>34</b> : 690-693 (1988).
	AU	Manafi, M.; et al. "Fluorogenic and Chromogenic Substrates Used in Bacterial Diagnostics". <i>Microbiol. Rev.</i> <b>55</b> (3): 335-348 (1991).
	AV	Marazuela, M.D.; et al. "Fiber-Optic Biosensors - An Overview". <i>Anal. Bioanal. Chem.</i> <b>372</b> : 664-682 (2002).
	AW	Nelis, H.; et al. "Enzymatic Detection of Coliforms and <i>Escherichia coli</i> Within 4 Hours". <i>Water, Air, and Soil Pollution</i> <b>123</b> : 43-52 (2000).
	AX	Park, S.J. et al. "Spectrofluorometric Assay for Rapid Detection of Total and Fecal Coliforms from Surface Water". <i>Appl. Environ. Micro.</i> <b>61</b> (5): 2027-2029 (1995).
	AY	Prescott, A.; et al. "Feasibility of Fast-Response Testing for Coliform Bacteria in Distribution Systems" American Water Works Association Research Foundation, 2002.
	AZ	Robertson, W.; et al. "Evaluation of a Rapid Method for <i>E. coli</i> and Thermotolerant Coliforms in Recreational Waters". <i>Wat. Sci. Tech.</i> <b>38</b> (12): 87-90 (1998).
	BA	Stachulski, A.V.; et al. "The Synthesis of O-glucuronides". <i>Natural Product Reports.</i> 173-186 (1998).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 602; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.